

ENERGY STAR Stakeholder Meeting

wattsmart *New Homes Program*



October 14, 2015

wattsmart New Homes Program Introductions

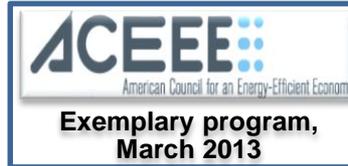
- Becky Robbins, Program Administrator, Nexant (Program Delivery Contractor)
- Troy Preslar, Program Outreach, Nexant (Program Delivery Contractor)



wattsmart New Homes History



26 gWh saved



ENERGY STAR 2005, 2009
Partner of the year

wattsmart
New Homes Program

Program Launch: 2005



2012: Rater
certification
introduced



2015: 73 participating
builders

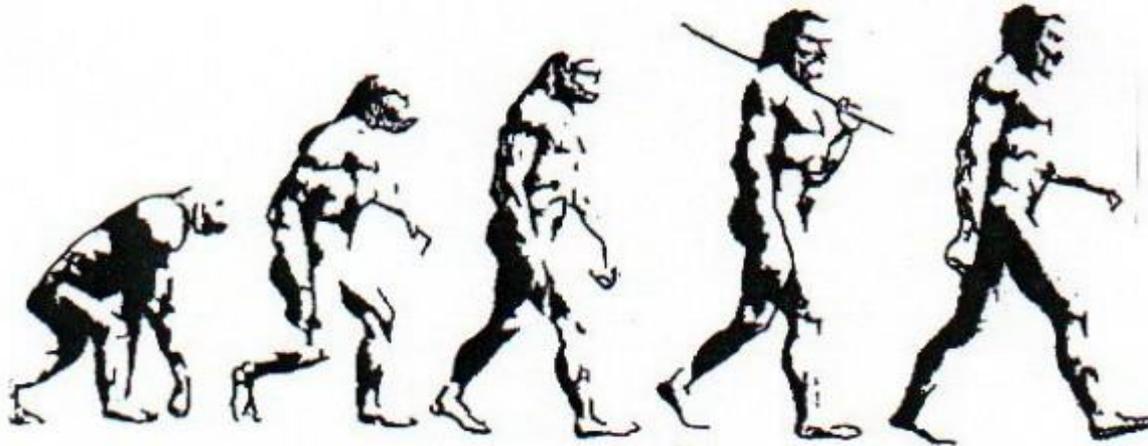
RMP new homes challenges

- Electric program in gas heated cold climate (1000cdd)
- No incentives for fuel switching measures
- Energy code (OK, not a problem in Utah)
- Per home savings reduction



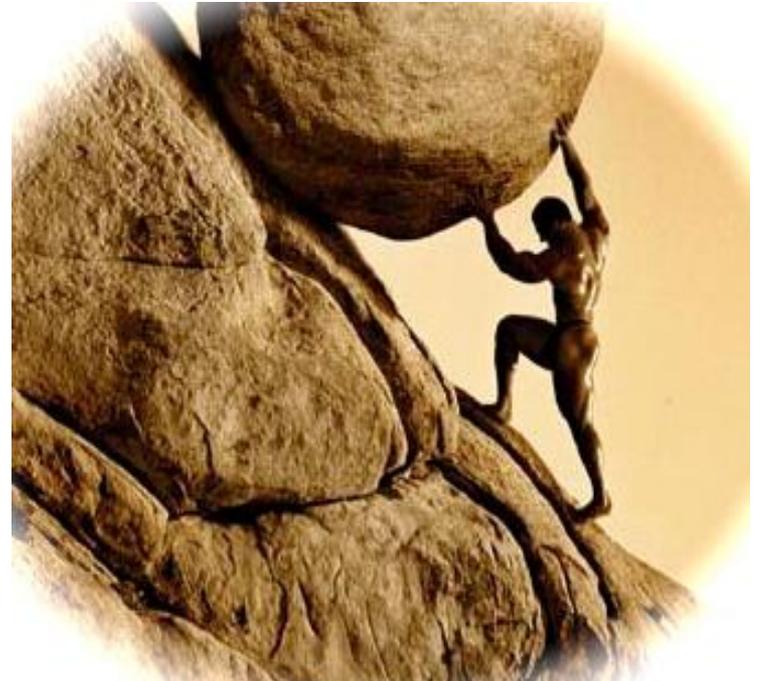
Evolution of RMP new homes

- Energy star only with duct adder
- ENERGY STAR only with CFLs
- ENERGY STAR only with light fixture adder
- Blend of ENERGY STAR and prescriptive



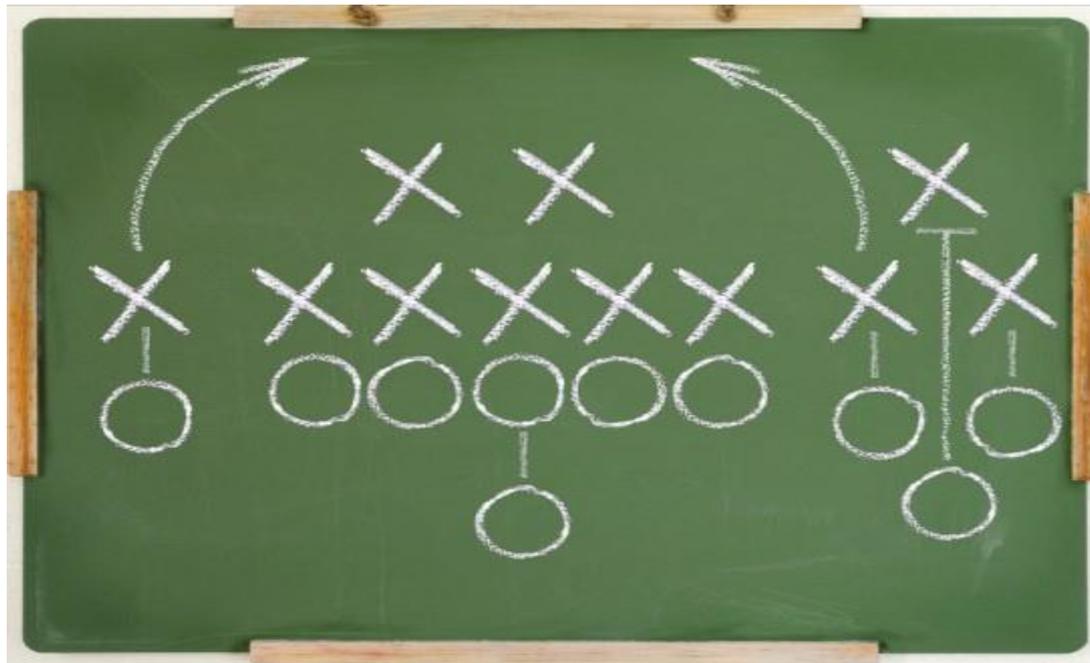
Challenges

- **Raised Baseline**
 - Energy Codes
 - National standards –EISA
 - Flat residential revenue



Strategies in the new normal

- Program design
- Builder engagement



From code to ENERGY STAR - Design

- Engage builders in prescriptive measures
 - Builder gets checks in hand (now believes the program is real)
 - Builder is more likely to attend program meetings/trainings



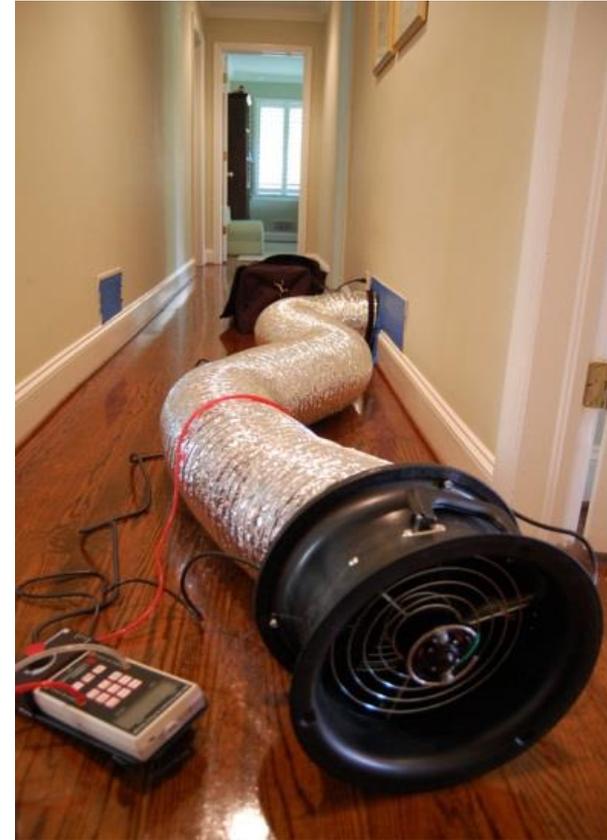
From code to ENERGY STAR

- Engage builders in basic performance measures
 - Builder establishes relationship with HERS rater
 - Builder gets used to testing and inspections in the building process



From code to ENERGY STAR

- Engage builders in ENERGY STAR program
 - Builder understands the value of whole home performance
 - Builder understands the value of testing and 3rd party verification



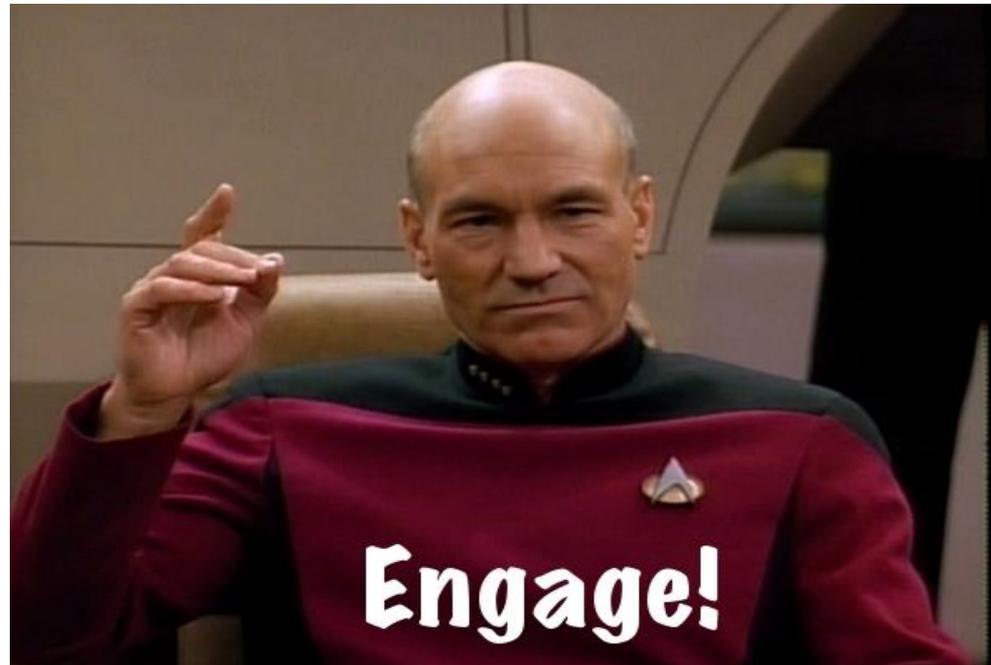
From code to ENERGY STAR

- We are efficiency dealers
 - Hook builders with prescriptive measures
 - Lead them along with basic performance
 - Land them with ENERGY STAR



Effective builder engagement

- Program allies
 - Identify potential allies
 - Join/partner
 - Integrate
 - Collaborate



Effective engagement

- HBAs
 - Join
 - Volunteer on committees
 - Get of Board of directors
 - Influence education



Effective Engagement

- Some pay to get in front of builders at HBAs
- We are being asked to provide education for builders
- We have been asked to provide content in local trade association magazines

4 HBMA PIPELINE

Ask the Expert ?



TROY PRESLAR
ROCKY MOUNTAIN POWER WATTSMART
NEW HOMES PROGRAM

wattsmart
New Homes Program

**ROCKY MOUNTAIN
POWER**

Question:
What is an ECM motor?

Answer:
ECM stands for electronically commutated motor. ECMs differ from standard motors (PSC- permanent split capacitor) in several ways. ECMs are brushless, DC, with permanent magnet rotors and with electronic motor control.

Question:
What benefits do variable speed ECM's have over standard HVAC blower motors?

Answer:
Probably the number one benefit to a furnace with a variable speed ECM is precision and controlled airflow. Manufacturers can program an ECM to deliver specific airflow in a system and have the motor maintain that airflow even if the static pressure changes.
Another large benefit is the constant fan option with a furnace with ECM. Trying to run constant fan with a PSC motor is problematic because the standard motor cannot run slow enough to be quiet and economical in this mode.

Question:
What are the benefits of constant fan mode?

Answer:
Being able to run a furnace in constant fan mode has many benefits. Constant fan mode allows continuous mixing of air throughout the home for more consistent temperatures, better air quality with constant filtration and conditioning of air.

Question:
Do ECMs correct the problems that come with high-static pressure systems?

Answer:
Let me make this short and sweet. NO! Installation of an ECM in a high static pressure system can actually make the problem worse in some cases. Because an ECM can sense airflow and is programmed to deliver a specific amount of air, if paired with a restrictive duct system, the motor will work extra hard to deliver the air. This results in the system being loud, inefficient, and possibly premature failure of the motor.

Question:
Are there different types of ECMs?

Answer:
Yes, there are two different types. The first we have already addressed, the variable speed ECM. The second type is the X 13. The variable speed ECM delivers constant air flow. The X 13 is a constant torque motor. Though the X 13 lacks some of the benefits of a variable speed motor, it is still very efficient compared to a PSC motor, and X13 motors actually may perform better in higher static pressure systems.

Question:
Are there rebates for the purchase of a furnace with an ECM?

Answer:
There are rebates and incentives for high efficiency furnaces with ECM blower motors. Both Rocky Mountain Power and Questar Gas offer rebates for furnaces with this type of motor and have done so for existing homes for some time now. Rocky Mountain Power and Questar Gas now also have rebates for 95% or better furnaces with ECM motors for new home construction as well.

Troy Preslar has been with the Rocky Mountain Power wattsmart New Homes Program for over 9 years, providing builders and their trades, including HVAC Contractors, program and technical support. He understands the unique challenges building efficient homes in Utah and works closely with builders to overcome those barriers.

For more information about the wattsmart new homes program:
www.rockymountainpower.net/newhomes



Danteq Evergreen EM X13 ECM motor

Design Summary

- Hook 'em with prescriptive
- Lead 'em with performance
- Land 'em with **ENERGY STAR**



Builder Engagement Summary

- **Builder Engagement**
 - Go to where the builders are and integrate, partner, and collaborate



Summary

Inclusivity in design and implementation

Time for a group hug



Questions?



Contact Information

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